



THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No. : 09/744,035 Confirmation No.: 3031  
Appellants : BAKI GYOZO  
Filed : April 20, 2001  
TC/A.U. : 3753  
Examiner : FOX, JOHN C.

Docket No. : 01-117  
Customer No. : 34704

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

APPEAL BRIEF

Dear Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed on July 17, 2007.

REAL PARTY IN INTEREST

The real party in interest is Kerox-Multipolar II. KFT.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant or Appellant's legal representative which will directly affect or be directly affected by or have a bearing on the Board of Appeals decision in the instant appeal.

STATUS OF CLAIMS

Claims 5-15 are rejected and are on appeal. A true copy of the claims on appeal as of April 17, 2007 is attached hereto in Appendix A.

### STATUS OF AMENDMENTS

No amendment was filed subsequent to the Examiner's final rejection.

### SUMMARY OF CLAIMED SUBJECT MATTER

In the technical practice, valve battery insertion assemblies called cartridges are already known which implement the tasks of closing and opening the cold- and warm-water inlet pipelines, the mixing of cold- and warm water as well as the routing of the mixed water to the outlet of the valve battery in a single structural assembly, the so-called cartridge (Appellant's specification, page 1, ll. 3-7).

In their basic design, these cartridges include a cartridge casing bordered with a base, an inlet disc fixed inside the cartridge casing as well as a control disc suitable to be displaced and rotated on the inlet disc on the side opposite to the base (Id., ll. 9-11).

The control disc is driven through a ceramic moving element by means of a driving arm pivoted in the lever holder (Id., ll. 13-14).

The lever holder supporting the driving arm is arranged in the cartridge casing so as to allow it to be rotated (Id., ll. 16-17).

In the inlet disc and the control disc, appropriate bores and holes are shaped for the purpose of controlling the inlet of

cold- and warm water as well as the outlet of mixed water (Id., page 2, ll. 1-3).

The cartridges of simpler design described above are widely used; in fact, they are capable of fulfilling the basic functions expected of a cartridge used in valve batteries, even without any addition (Id., ll. 5-7).

There are, however, an increasing demand for cartridges to fulfill other functions as well (Id., ll. 9-10).

The functions required most frequently are the pressure equalization, the use of non-return valves and the reversibility (Id., ll. 12-13).

The pressure equalization of both the cold water and warm water is a very important task; otherwise, any sudden change in the pressure of either inlet branch would result in scalding and cold water shock, respectively, to the user (Id., ll. 15-17).

Pressure reduction of cold water inlet occurs frequently if a cold water consumer device e.g. toilet rinsing tap is mounted near the mixing valve; in fact, its operation results in sudden decrease in the cold water support pressure which, in turn, causes the sudden rise of mixed water temperature from the cartridge without pressure equalization (Id., ll. 19-23).

The non-return valves are necessary in installations where the possibility exists that water from the branch of higher

pressure flows to that of lower pressure when the cartridge is open (Id., ll. 24-26).

The possibility of reversion is necessary to allow the cartridge to be connected to an unusual cold water and warm water supply arranged e.g. on two sides of a bathroom wall (Id., at page 3, ll. 1-3).

According to the present state of technique, various solutions of the above tasks are known (Id., ll. 5-6).

The USA patent description No. 5.725.010 describes a pressure equalizer and mixing valve battery in which the pressure equalizer assembly is arranged in the valve battery body between the traditional cartridge and the water inlet pipes (Id., ll. 8-10).

The patent application No. EP 0559998 also describes a cartridge with pressure equalization. Its essence is, that the base of the traditional cartridge is provided with a protrusion which includes a seat arranged perpendicular to the symmetry axis of the cartridge, and a pressure equalizer is arranged perpendicular to the symmetry axis of the cartridge in the said seat (Id., ll. 12-16).

Usually, the non-return valves are mounted directly on the inlet pipelines themselves; thus, according to the traditional practice, they are not integrated into the cartridge (Id., at ll. 18-19).

For the solution of reversion, the USA patent No. 4.676.270 is known, where the reversion is performed by a cylinder which is mechanically independent of the cartridge (Id., ll. 21-23).

The patent application No. EP 0771980 also describes a solution in which the structural elements of various function are fastened by means of connecting elements to the relevant cartridge casing (Id., ll. 25-27).

The application No. EP 0 684 416 discloses a cartridge, where in the base of the cartridge there are formed two separated and partly widened conducting openings, separately for the cold and warm water, further in the widened part of each opening there is arranged a back-flow preventer valve, both of them can be manufactured integrally (Id., at page 4, ll. 1-6).

This solution is excellent, when the two separate inserts do not have to communicate with each other, however cannot be used if the two separate inserts have to communicate with each other, or have to be connected to each other (Id., ll. 7-10).

An unfavorable feature of the above solutions is that they are task-specific; this means that the base of cartridge shall be designed according to the task (Id., ll. 11-13).

In order to eliminate the above unfavorable features, the present invention is aimed at establishing a solution which, without any special technical knowledge, can be used universally

for providing the cartridges known in themselves with elements of various additional functions (Id., ll. 14-18).

This invention is aimed at implementing a cartridge which ensures quickly and safely that, by using cartridges known in themselves and elements performing various additional functions, an arrangement integrated simply and quickly can be established (Id., ll. 19-22).

"According to the present invention, the above task is solved by means of an universal mixing valve battery cartridge - used primarily for mixing cold water and warm water - which has two discs arranged one above the other to form a plane sealing together, being the lower disc a stationary inlet disc and the upper disc a control disc suitable to be displaced and rotated on the inlet disc; where said control disc is in mechanical connection with a driving arm pivoted in a lever holder - through a ceramic moving element as the case may be - and the lever holder is arranged in the cartridge casing that allows it to be rotated; while on the base of the cartridge a connection place is formed or arranged for the reception of at least one insertion piece, further the opening for the admission of the insertion piece of the connection place is formed principally in a direction which is parallel with the longitudinal axis of the cartridge, whereas the connection place is an outwardly directed sleeve, arranged or formed on the base, wherein the cold and

warm water inlet formed in the base are ending" (Id., at page 4, l. 23 - page 5, l. 17).

In a preferred embodiment of the mixing valve battery cartridge according to the invention, the insertion piece, which is partly arranged in the connection place, is partly arranged between the valve battery casing and the connection place (Id., ll. 18-22).

As shown in Fig. 1 that, in the valve battery body 12 of a valve battery, a casing 3 is arranged, which accommodates a lever holder 2 so as to allow its rotation (Id., page 7, ll. 2-4).

The lever holder 2 holds the driving arm 1 pivoted on the rotational axis 7, being said driving arm 1 in connection through the ceramic moving element 4 with the control disc 5 (Id., ll. 5-9).

The control disc 5 is arranged on the inlet disc 6 in which holes are shaped for the inlet of cold water and warm water as well as outlet of mixed water (Id., ll. 9-11).

The inlet disc 6 is arranged on the base 9 connected to the casing 3, where the base 9 includes the connection place 14 to accommodate the insertion piece 10 (Id., ll. 12-15).

In the holes of the base 9 and the inlet disc 6, the rubber sealing 8 is arranged while between the valve battery body 12 and the casing 3, and the insertion piece 10 and the base 9 as well as the other end of the insertion piece 10 and the valve battery body 12, the seals 11 are arranged (Id., ll. 16-21). In the valve battery body 12, the connection ducts 13 are shaped

(Id., ll. 21-22).

Fig. 2 shows the valve battery cartridge of Fig. 1 without the insertion piece 10 (Id., ll. 23-24).

Fig. 3 shows the side view of the cartridge of Fig. 1 (Id., page 8, l. 1).

Fig. 4 shows the bottom view of the base 9 (Id., l. 2).

The insertion piece 10 shown in Fig. 1 is suitable to be used for straight passage (Id., ll. 3-4). The insertion piece 10 shown in Fig. 6 is designed as a pressure equalizer insertion piece (Id., ll. 5-6). The insertion piece 10 shown in Fig. 7 is designed as a reverting insertion piece (Id., ll. 7-8).

The function of the cartridge according to the invention is described below in detail (Id., ll. 9-10).

As shown in Fig. 1, by actuating the driving arm 1, the relative position of the control disc 5 and the inlet disc 6 can be changed through the ceramic moving element 4 (Id., ll. 11-13).

By shutting off and bypassing the holes in the inlet disc 6 by means of the control disc 5, the temperature and flow of water outlet via the opening shaped in the base 9 to the valve battery body 12 can be changed in a manner known in itself (Id., ll. 14-18).

The insertion piece 10 arranged in the connection place 14 parallel to the axis of the cartridge ensures the connection between the connection ducts 13 shaped in the valve battery body 12 and the inlet holes of base 9, while the seals 11 arranged between the valve battery body 12 and the insertion piece 10



ensure the leakage-free isolation between these connecting ducts and the inner space of valve battery body 12 (Id., page 8, l. 19 - page 9, l. 2).

Thus, in the casing 3 of cartridge known in itself, the cold water and warm water flows from the connecting ducts 13 of the valve battery body 12 through the current insertion piece 10 to the holes shaped in the base 9 of the cartridge and, then, to the bores and holes of the inlet disc 6 (Id., page 9, ll. 3-8).

By changing the insertion piece 10, the cartridge provided with the insertion piece 10 is capable of fulfilling various functions; thus, the insertion piece 10 shown in Fig. 5 implements a simple inlet, the insertion piece 10 shown in Fig. 6 implements pressure equalization while the insertion piece 10 shown in Fig. 7 implements the inversion of water inlet (Id., ll. 9-15).

The insertion pieces 10 are always inserted parallel to the longitudinal axis of cartridge into the connection place 14; thus, the seals 11 are under pressure when the cartridge is mounted in the valve battery body 12 and ensure sufficient sealing (Id., ll. 16-20).

The advantage of the cartridge according to the invention is that, by changing the insertion piece 10 that requires no special skill, the function of the cartridge can be arbitrarily specified and changed by using the insertion pieces 10 available (Id., at page 9, l. 21 - page 10, l. 2).

GROUND OF REJECTIONS TO BE REVIEWED ON APPEAL

There are three pending rejection(s) of claims 5-15, all of which are being appealed, as set forth below.

- (1) Claims 5-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S.P.N. 5,806,552 to Martin, Jr. in view of the Prior Art admitted by Application on page 1 of the specification, See MPEP §2129;
- (2) Claims 5-11 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S.P.N. 5,806,552 to Martin, Jr., as modified above, in view of U.S.P.N. 4,804,011 to Knapp;
- (3) Claims 5-10 are rejected under 35 U.S.C. §102(b) as being anticipated by EP 0 684 416 to Orlandi et al.; and
- (4) Claims 12, 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S.P.N. 5,806,552 to Martin, Jr., in view of Prior Art admitted by Applicant on page 1 of the specification and further in view of EP 0 771 980 to Orlandi et al.

ARGUMENTS

I. U.S.P.N. 5,806,552 TO MARTIN, JR. IN VIEW OF THE PRIOR ART ADMITTED BY APPLICANT ON PAGE 1 OF THE SPECIFICATION, WHEN FAIRLY READ, FAIL TO DISCLOSE, SUGGEST OR RENDER OBVIOUS THE SUBJECT MATTER OF CLAIMS 5-8 UNDER  
35 U.S.C. §103(A)

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Appellants assert that claims 5-8 are each individually patentable and not rendered obvious in view of U.S.P.N. 5,806,552 to Martin, Jr., in view of Prior Art admitted by Applicant on page 1 of the specification. Appellants' claims 5, 6 and 8 are independent and claim 7 is dependent upon independent claim 6.

A proper analysis under 35 U.S.C. § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991) (citing *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988)). Both the suggestion and the reasonable expectation of success "must be founded in the prior art, not in the Appellant's disclosure." *Id.*

U.S. Patent No. 5,806,552 ('552) describes a cartridge-type valve being capable to reverse the flow of the hot and cold water (See Abstract). The valve 10 has an adapter gasket 50 and a seal member 80 (col. 3, ll. 5-17, ll. 38-53). According to '552, the seal member 80 is constructed and arranged in a way that the seal 80 can be turned over from the first position into

a second position (col. 4, ll. 4-22; See FIGS. 3A, 5A and 5B). This means that the flow pass of the hot and cold water can be reversed (Id.). When reversing the flow pass, the entire adapter gasket 50 must be removed from the cartridge valve assembly 10 in order to remove the seal member 80 and either rotate or turn over the member 80 (See generally col. 4, ll. 4-22; FIGS. 3, 3A, 3B, 5A and 5B). The valve 10 described in the '552 patent can be used for one function only. Namely by changing the positions the flow of the hot and cold water can be reversed. All the embodiments of the description of the '552 refer to the reverse possibilities. In framing the present rejection, the examiner contends the seal member 80 of Martin, Jr., reads as the insertion piece of Appellant's claims 5-8 (Final Office action mailed April 17, 2007, page 2).

Appellants' claim term directed to the "insertion piece" recites in part the following: "an interchangeable insertion piece (10) selected from at least three different insertion pieces" (claims 5 and 8) and "a replaceable insert (10) being selected from at least three different replaceable inserts" (claim 6). As disclosed in Appellant's specification, the insertion piece 10 shown in Fig. 1 is suitable to be used for straight passage (page 8, ll. 3-4). The insertion piece 10 shown in Fig. 6 is designed as a pressure equalizer insertion piece (Id., ll. 5-6). The insertion piece 10 shown in Fig. 7 is designed as a reverting insertion piece (Id., ll. 7-8).

In framing the present rejection, the examiner asserts Figure 3A of Martin, Jr. shows two insertion pieces of different functions. Appellants draw the Board's attention to the fact that Figure 3A in fact illustrates seal 80 in a first position as shown in Figure 5A and in a second position, that is, turned

over, as shown in Figure 5B. Contrary to the examiner's assertion, Martin, Jr. does not teach two seal members 80 of different functions. Martin, Jr. teaches a single seal member 80 capable of reversing the flow pass of the hot and cold water by either rotating the seal member 80 by 180° or turning over the seal member 80.

Martin, Jr. does not teach, suggest or provide the requisite motivation to alter its teachings and teach utilizing more than one seal member 80 taught therein or insertion piece 10 as recited in Appellant's claims. Appellants contend Martin, Jr. fails to recognize and appreciate utilizing more than one seal member 80.

Martin, Jr., discloses the following at col. 4, ll. 46-49, 55-57:

"It will therefore be appreciated that a hot to cold water or cold to hot water conversion can be achieved in a mixing valve by merely removing a seal, rotating it or turning it over, and replacing it."

"Another feature is the fact that the insert is easily cast in one piece thus obviating having to weld several components together as in some adapters."

Martin, Jr., taught and suggested nothing more than removing seal member 80, rotating it or turning it over, to reverse the flow pass of the hot and cold water. Moreover, Martin, Jr., apparently believed that in order to achieve the same effect without the novel seal member 80 taught therein, one of ordinary skill in the art would have to weld several components together. Furthermore, when reversing the flow pass, the entire adapter gasket 50 must be removed from the cartridge valve assembly 10 in order to remove the seal member 80 and either rotate or turn over the member 80. In contrast to the teachings of Martin Jr., at least three different insertion pieces (See Appellant's FIGS. 5-7) can be received in the connection element of Appellants'

claimed cartridge of independent claims 5, 6 and 8. Only the insertion piece 10 has to be changed and neither cartridge casing 3 nor the base 9 have to be changed.

In framing the present rejection, the examiner contends it would be an obvious expediency to have three of the elements 80 in a repair kit. As discussed, Martin, Jr., fails to teach, suggest or provide the requisite motivation to alter its teachings and teach utilizing three different seal members 80 having three different functions. Even assuming for the sake of argument that the examiner's position of obvious expediency is correct, there is still no teaching of providing a cartridge casing having a connection element which is capable of receiving three different insertion pieces or seal members 80 as taught by Martin, Jr. The examiner is clearly relying upon the Applicants' claims to provide the requisite motivation to alter the teachings of Martin, Jr. to make up for deficiencies in the teachings and suggestions of Martin, Jr.

The examiner's attempt to read in the Prior Art admitted by Appellant on page 1 of the specification cannot cure the deficiencies present in the disclosure of Martin, Jr. The Prior art fails to teach, suggest or provide the requisite motivation to alter the teachings of Martin, Jr. and teach utilizing at least three different insertion pieces as recited in Appellant's independent claims 5, 6 and 8.

For these aforementioned reasons, Appellant respectfully requests the Board of Patent Appeals and Interferences find Appellant's claims 5-8 are patentable over and not obvious in view of U.S.P.N. 5,806,552 to Martin, Jr. in view of the Prior Art admitted by Applicant on page 1 of the specification.

II. U.S.P.N. 5,806,552 TO MARTIN, JR., AS MODIFIED ABOVE,  
IN VIEW OF U.S.P.N. 4,804,011 TO KNAPP, WHEN FAIRLY READ,  
FAIL TO TEACH, DISCLOSE, SUGGEST OR RENDER OBVIOUS THE  
SUBJECT MATTER OF CLAIMS 5-11 and 13 UNDER  
35 U.S.C. §103(A)

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Appellants assert that claims 5-11 and 13 are each individually patentable and not rendered obvious in view of U.S.P.N. 5,806,552 to Martin, Jr., in view of Prior Art admitted by Applicant on page 1 of the specification, in view of U.S.P.N. 4,804,011 to Knapp. Appellants' claims 5, 6, 8 and 9 are independent, claim 7 is dependent upon independent claim 6 and claim 11 is dependent upon independent claims 1 or 8.

A proper analysis under 35 U.S.C. § 103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991) (citing *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988)). Both the suggestion and the reasonable expectation of success "must be founded in the prior art, not in the Appellant's disclosure." *Id.*

Appellant reiterates the remarks and arguments set forth above with respect to the disclosure of Martin, Jr. alone and as modified by the Prior Art admitted by Appellant on page 1 of the specification. Appellant contends the Knapp reference fails to cure the deficiencies present in Martin, Jr.

The secondary reference, U.S. Patent No. 4,804,011 (`011) to Knapp, teaches a cartridge receivable in a mixing valve body for regulating the flow rate and the mixing proportions of the liquid from two supply inlets (See Abstract). `011 reference teaches the simplest embodiment for a reverse function mixing valve. The joint means mounted to the bottom can be rotated in two different positions to cause the communication of the supply inlets to be inverted (col. 4, ll. 9-18). Appellants note that bottom 19 taught by Knapp corresponds to base 9 recited Appellant's claims. According to the teachings and suggestions of Knapp, the whole valve has to be disassembled and assembled again in order to change the function of the valve (col. 4, ll. 19-30) in contrast to Appellant's claims 5, 6, 8 and 9. In Appellant's claimed cartridge, the insertion piece may be removed and replaced without requiring disassembly of any other parts of the claimed cartridge. When reading Knapp in its entirety, Knapp does not teach, suggest or provide the requisite motivation to alter its teachings and teach imparting any other functions beyond reversion unlike Appellant's claim term "at least three different replaceable inserts" or "at least three different insertion pieces". The advantage of the Appellant's claimed cartridge lies in the simple mode of changing the insertion piece. Since only insertion piece 10 has to be changed, the other sealing elements of Appellants' claimed cartridge remain untouched. Owing to this feature the life-time of the valve greatly increases.

When considered the combined teachings of Martin, Jr. in view of Knapp, both cited references teach only a valve having one single function which is to reverse the flow pass of hot and cold water. The combined teachings of Martin, Jr. in view of Knapp fail to teach, suggest or provide the requisite motivation



to alter their teachings and teach utilizing three different replaceable inserts as recited in Appellant's claims.

Appellant draws the Board's attention to col. 1, ll. 41-47 of Knapp in which Knapp teaches standardizing a cartridge for different kinds of mixing valves or for different mixing conditions. Knapp teaches that reductions of the production and storage costs and better industrial organization of the production, storage and distribution are made possible by standardizing the aforementioned cartridge as taught therein (Id., ll. 44-47). Knapp explicitly teaches away from utilizing more than one insertion piece as recited in Appellants' independent claims 5, 6, 8 and 9. Rather than utilize any one of at least three different insertion pieces as claimed by Appellants, Knapp teaches utilizing a single standardized insertion piece. Moreover, Knapp only considers teaching and suggesting the use of a standardized cartridge having only one function, rather than different functions as embodied in Appellant's claims. Such teachings and suggestion fail to provide the requisite motivation to alter the teachings of Martin, Jr. and teach all of the elements of Appellant's claims.

For these aforementioned reasons, Appellant respectfully requests the Board of Patent Appeals and Interferences find Appellants' claims 5-11 and 13 are patentable and not obvious in view of U.S.P.N. 5,806,552 to Martin, Jr., as modified above, in view of U.S.P.N. 4,804,011 to Knapp.

III. EP 0 684 416 TO ORLANDI, WHEN FAIRLY READ, FAILS TO  
ANTICIPATE THE SUBJECT MATTER OF CLAIMS 5-10 UNDER  
35 U.S.C. §102(B)

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Appellant asserts that claims 5-10 and 13 are each individually patentable and not anticipated by EP 0 684 416 to Orlandi. Appellants' claims 5, 6, 8 and 9 are independent, claim 7 is dependent upon independent claim 6, and claim 10 is dependent upon independent claim 6.

In framing the present rejection, the examiner contends Orlandi teaches a lever actuated faucet with three elements 12 performing different functions (Final Office action mailed April 17, 2007, pages 3-4). The examiner notes the elements 12 are received in sealed in a part 11 which the examiner asserts is read as a connecting piece and are selected for use as needed (Id.). The examiner also confirms Appellant's prior statements that Orlandi teaches using two different inserts, that is, one insert in each of the hot and cold water lines (Id.). However, the examiner also asserts Appellant's Figures 1 and 2 show two different inserts in use and Appellant's claims are broad enough to encompass Appellant's Figures 1 and 2, and are thus anticipated by Orlandi.

In making these remarks, the examiner fails to identify what he considers to be a second insertion piece as recited in Appellant's claims. Clearly, when viewing either or both Appellant's Figures 1 and 2, only one insertion piece 10 is shown, and not two inserts as illustrated and taught by Orlandi. Moreover, Appellant's independent claims 5, 6, 8 and 9 recite the claim term "a replaceable insert (10)" arranged in a sealed manner in "a connection element (14)". When reading Appellant's independent claims in light of the claims as a whole, one

quickly recognizes there cannot be more than one replaceable insert arranged in a sealed manner within the connection element of Appellant's claimed cartridge. The examiner's contention that (a) Figures 1 and 2 illustrate more than one replaceable insert (10) in use and (b) Appellant's claims are broad enough to encompass the use of more than one replaceable insert at a time in Appellant's claimed cartridge are both completely false. The hypothetical embodiment would be rendered inoperable as Appellant's claimed "replaceable inserts (10)" each have different functions which do not coincide with each other. In addition, the examiner's contentions run opposite of the teachings of Orlandi.

Orlandi teaches the mixer valve of the '416 document utilizes two insertion pieces in the mixer valve, one for hot water and one for cold water. The insertion pieces are not replaceable or exchangeable. Both insertion pieces are necessary in order to get hot and cold water from the mixer valve taught by Orlandi in contrast to Appellant's claimed cartridge where both the hot and cold water functions have been prepared in a single insertion piece. In the '416 patent there is no ability to insert different insertion pieces to obtain different functions. Only one set of insertion pieces are provided for in the '416 and this set must be used together in order to obtain hot and cold running water.

Moreover, the teaching of the '416 document is totally different from that of Appellant's claims. It should also be noted that the claims set forth that the "cartridge casing is formed with a connection piece for receiving an interchangeable insertion piece". The insertion piece (singular) is selected from at least three different insertion pieces. Thus the

cartridge casing contains only a single insertion piece. Again, this is totally different from the teachings of the '416.

In the alternative, should the examiner have interpreted and equated the control disc 5 and inlet disc 6 of Appellant's claimed cartridge, as shown in Figures 1 and 2, with the inserts taught by Orlandi, Appellants contend the examiner would still be in error as Orlandi would still fail to teach the claimed insertion pieces recited in Appellant's independent claims 5, 6, 8 and 9.

For these aforementioned reasons, Appellants respectfully request the Board of Patent Appeals and Interferences find Appellants' claims 5-10 are patentable and not anticipated by EP 0 684 416.

IV. U.S.P.N. 5,806,552 TO MARTIN, JR., IN VIEW OF PRIOR ART ADMITTED BY APPLICANT ON PAGE 1 OF THE SPECIFICATION AND FURTHER IN VIEW OF EP 0 771 980 TO ORLANDI ET AL., WHEN FAIRLY READ, FAILS TO DISCLOSE, SUGGEST OR RENDER OBVIOUS THE SUBJECT MATTER OF CLAIMS 12, 14 AND 15 UNDER  
35 U.S.C. §103(A)

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Appellants assert that claims 12, 14 and 15 are each individually patentable and not rendered obvious in view of U.S.P.N. 5,806,552 to Martin, Jr., in view of Prior Art admitted by Applicant on page 1 of the specification, and further in view of EP 0 771 980 to Orlandi et al. Appellants' claim 12 is dependent upon independent claim 8, claim 14 is ultimately dependent upon independent claim 6, and claim 15 is dependent upon independent claim 9.

A proper analysis under 35 U.S.C. § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991) (citing *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988)). Both the suggestion and the reasonable expectation of success "must be founded in the prior art, not in the Appellant's disclosure." *Id.*

Appellant reiterates the remarks and arguments set forth above with respect to the disclosure of Martin, Jr. alone and as modified by the Prior Art admitted by Appellant on page 1 of the

specification. Appellant contends the '980 reference to Orlandi fails to cure the deficiencies present in Martin, Jr.

In framing the present rejection, the examiner asserts Martin, Jr., as modified, shows the claimed invention except for a pressure equalizer function (Final Office action mailed April 17, 2007, page 4). The examiner contends it would have been obvious to have used a pressure regulating insert as taught by Orlandi et al. in the valve of Martin, Jr., as modified, to provide pressure control in the valve thereof (Id.).

As discussed in detail in the argument of Section I, Martin, Jr. fails to teach or suggest utilizing more than one type of sealing member 80 in the valve taught therein. Given the fact that Martin, Jr. either rotates the sealing member 180° within the adapter gasket 50, or removes, turns over and then reinserts the sealing member 80 within the adapter gasket 50, one of ordinary skill in the art would experience great difficulty somehow inserting the pressure regulating insert of Orlandi et al. into the adapter gasket 50 of Martin, Jr. Such a hypothetical construct could not operate properly according to the structural features of the valve taught by Martin, Jr., as the pressure regulating insert of Orlandi et al. could not be rotated 180, or removed, turned over and then reinserted in order to reverse the flow as truly intended in the teachings of Martin, Jr.

If, on the other hand, the examiner intended to simply attach the pressure regulating insert to the bottom of the valve taught by Martin, Jr., then the examiner has in no way achieved the claimed cartridge recited in each of Appellant's claims 5, 6, 8 and 9. This alternative hypothetical construct would still fail to teach or suggest "at least three different insertion pieces" (See Appellant's FIGS. 5-7) that can be received in the

connection element of Appellant's claimed cartridge of independent claims 5, 6, 8 and 9. The examiner would still be relying upon the modified teachings, per the examiner's remarks, of Martin, Jr. to suggest the other two possible insertion pieces are taught therein, which Appellant has made clear is not possible given the deficiencies in the teachings of Martin, Jr.

For these aforementioned reasons, Appellant respectfully requests the Board of Patent Appeals and Interferences find Appellants' claims 5-11 and 13 are patentable and not obvious in view of U.S.P.N. 5,806,552 to Martin, Jr., as modified above, in view of EP 0 771 980 to Orlandi et al.

CONCLUSION

For the reasons set forth above, the honorable Board of Appeals is hereby requested to reverse the Examiner's rejection of claims 5-15 based on all of the cited references discussed above.

CLAIMS APPENDIX

Attached hereto is a Claims Appendix A containing all claims in the application and which form the basis for this appeal.

EVIDENCE APPENDIX

None.

SPECIAL PROCEEDINGS APPENDIX

None.

APPEAL BRIEF FEE

Please charge Deposit Account No. 02-0184 in the amount of \$250.00 to cover the Appeal Brief fee.



If any other fees are required in connection with this case, it is respectfully requested that they also be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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IN TRIPLICATE

Date: September 17, 2007

I, Ross J. Christie, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on September 17, 2007.

  
Ross J. Christie

Appendix A  
Claims Appendix

1-4 (cancelled).

5. Valve battery cartridge used for mixing cold water and warm water, comprises two discs (5,6) arranged one above the other to form a plane sealing together, wherein the lower disc (6) is a stationary inlet disc and the upper disc (5) is a control disc which is displaceable and rotatable on the inlet disc; where the control disc (5) is in mechanical connection with a driving arm (1) pivoted in a lever holder (2) through a ceramic moving element (4), the lever holder (2) is rotatably arranged in a cartridge casing (3), the base (9) of the cartridge casing (3) is formed with a connection element (14) for receiving an interchangeable insertion piece (10) selected from at least three different insertion pieces, wherein an opening for receiving any of the interchangeable insertion pieces in the connection element is formed in a direction which is substantially parallel with a longitudinal axis of the cartridge, wherein the connection element (14) in the base (9) of the cartridge casing (3) receives any of the interchangeable insertion piece (10) which enables connection between connection ducts (13) in a valve battery body (12) and inlet openings, and wherein a longitudinal axis of the interchangeable insertion pieces is substantially parallel to the longitudinal axis of the cartridge in the base (9) and the base (9) is provided with seal means (11) insulating the connection element from an inner space of the valve battery body (12).

6. Battery cartridge for use in a battery body (12) for mixing cold and warm water comprising two discs (5,6) arranged one

above the other and together forming a planar seal, comprising a fixed inlet disc (6) and a control disc (5) which is displaceable and rotatable on the inlet disc (6), the control disc (5) comprising a movement lever (1) rotatably mounted in a lever holder (2) and being mechanically connected via a ceramic drive (4), the lever holder (2) being rotatably arranged in a cartridge housing (3) at a lower part (9) of the cartridge housing (3) at a side opposing the inlet disc (6) and facing the battery body (12), a connecting element (14), of which inlet apertures substantially extend in a longitudinal direction of the cartridge housing (3), and a replaceable insert (10) selected from at least three different replaceable inserts being arranged in a sealed manner in the connecting element (14) between connecting passages (13) constructed in the battery body (12) and the inlet apertures of the lower part (9), wherein the connecting element (14) encompasses the inlet apertures provided in the lower part (9) of the cartridge housing (3), and the inlet apertures are sealed from one another by any of the replaceable inserts.

7. Battery cartridge according to claim 6, wherein seals (11) are arranged between the insert (10) and the lower part (9) and between one end of any of the inserts (10) and the battery body (12) for sealing the insert with the connection element.

8. Valve battery cartridge used for mixing cold water and warm water, comprises two discs (5,6) arranged one above the other to form a plane sealing together, wherein the lower disc (6) is a stationary inlet disc and the upper disc (5) is a control disc which is displaceable and rotatable on the inlet disc; where the control disc (5) is in mechanical connection with a driving arm (1) pivoted in a lever holder (2) through a ceramic moving

element (4), the lever holder (2) is rotatably arranged in a cartridge casing (3), the base (9) of the cartridge casing (3) is formed with a connection element (14) for selectively receiving different interchangeable insertion pieces (10) selected from at least three insertion pieces, wherein an opening for receiving any of the interchangeable insertion pieces in the connection element is formed in a direction which is substantially parallel with a longitudinal axis of the cartridge, wherein the connection element (14) in the base (9) of the cartridge casing (3) receives any of the selected interchangeable insertion pieces (10) which enables connection between connection ducts (13) in a valve battery body (12) and inlet openings, and wherein a longitudinal axis of all of the interchangeable insertion pieces is substantially parallel to the longitudinal axis of the selected cartridge in the base (9) and the base (9) is provided with seal means (11) insulating the connection element from an inner space of the valve battery body (12).

9. Battery cartridge for use in a battery body (12) for mixing cold and warm water comprising two discs (5,6) arranged one above the other and together forming a planar seal, comprising a fixed inlet disc (6) and a control disc (5) which is displaceable and rotatable on the inlet disc (6), the control disc (5) comprising a movement lever (1) rotatably mounted in a lever holder (2) and being mechanically connected via a ceramic drive (4), the lever holder (2) being rotatably arranged in a cartridge housing (3) at a lower part (9) of the cartridge housing (3) at a side opposing the inlet disc (6) and facing the battery body (12), a connecting element (14), of which inlet apertures substantially extend in a longitudinal direction of the cartridge housing (3), and a selected replaceable insert

(10) being arranged in a sealed manner in the connecting element (14) between connecting passages (13) constructed in the battery body (12) and the inlet apertures of the lower part (9), wherein the selected replaceable insert comprises an insert selected from at least three inserts of different functions which are interchangeable with the connecting element to provide different functions for the battery cartridge wherein the connecting element (14) encompasses the inlet apertures provided in the lower part (9) of the cartridge housing (3), and the inlet apertures are sealed from one another by any of the three replaceable inserts.

10. Battery cartridge according to claim 6, wherein seals (11) are arranged to seal between any of the three inserts (10) and the lower part (9) and between one end of any of the three inserts (10) and the battery body (12).

11. Valve battery cartridge according to claim 1 or 8, wherein each of the three interchangeable insertion pieces provide a different function.

12. Valve battery cartridge according to claim 11, wherein one of the three interchangeable insertion pieces is a pressure equalizer insertion piece and another of the three insertion pieces is a reverting insertion piece.

13. Battery cartridge according to claim 6, wherein each of the three replaceable inserts provide a different function.

14. Battery cartridge according to claim 13, wherein one of the replaceable inserts is a pressure equalizer insert and another of the replaceable inserts is a reverting insertion piece.

15. Battery cartridge according to claim 9, wherein the at least three inserts of different function include a pressure equalizer insert and a reverting insert.

Appendix B

Evidence Appendix

None.

Appendix C

Related Proceedings Appendix

None.